**Amendments to the Specification:**

Please replace the paragraph beginning at page 2, line 8, with the following rewritten paragraph:

In the electrocardiogram, and especially in the electroencephalogram (EEG), it is important to monitor the impedance of the electrodes attached to the ~~patent~~ patient in order to ensure a good quality of the signal. Usually this happens by conducting a small high-frequency current (20-200 kHz) into the electrodes, and by measuring the voltage. In addition, it is common to monitor the respiratory movements of the patient's chest by measuring the small changes in the impedance of the chest. The impedance measurement is also a known method in the estimation of the stroke volume of the heart or changes in it. The principles of the impedance cardiography method have been presented e.g. in the book "Principles and Practice of Intensive Care Monitoring", Martin J. Tobin, McCraw-Hill 1998, ISBN:007-0650942, pages 915-921, to which reference is made herein.

Please replace the paragraph beginning at page 3, line 8, with the following rewritten paragraph:

It is possible to utilize the EEG in anesthesia. Then, by observing the diagram produced by the ~~EKG~~ EEG it is possible to ensure the level of anesthesia of the patient. There is a short preamble of the above-mentioned technique presented in the article "A Primer for EEG Signal Processing in Anesthesia", Ira J. Rapil, American Society of Anesthesiologists Inc. 1998, pages 980-1002, to which reference is made herein.

Please replace the paragraph beginning at page 5, line 26, with the following rewritten paragraph:

In one embodiment of the invention, the medical monitoring system of the invention comprises signal conductors, which, according to the standard placement of electrodes, are connected to the measuring electrodes attached to the ~~patent~~ patient, and which each signal conductor comprises a first connector apparatus; and measuring

equipment which comprises electrocardiogram (EKG), electroencephalogram (EEG), and impedance cardiograph signal equipment (IKG). According to the invention, the equipment comprises a selector switch for selecting the measurement type so that in the first position of the switch, the signal conductors are connected to the 12 lead electrocardiogram equipment (EKG), in the second position of the switch, part of the signal conductors are connected to the electroencephalogram equipment (EEG), and in the third position of the switch, part of the signal conductors are connected to the impedance cardiograph signal equipment (IKG).

Please replace the paragraph beginning at page 8, line 3, with the following rewritten paragraph:

Fig. 5 represents one circuit diagram in accordance with the invention. The figure shows the measuring of a 12-switched EKG and EEG. The measuring electrodes RA, LA, RL, LL, $V_5$ needed in the measuring of a 5-switched EKG are connected via protective resistors $R_{1...5}$ to amplifiers $A_{1,3,5,7,9}$. The signal is further amplified by a second row of amplifiers $A_{2,4,6,8}$, from which there is a connection to a multiplexer MP. Further, from the four measuring electrodes RA, LA, RL, LL, a sum function SUM is calculated. From the multiplexer MP there is a connection via an ~~analogy~~ analog/digital converter to a micro processor PROC. Besides the aforementioned measuring electrodes, for the measuring of a 12-switched EKG and EEG, the measuring electrodes $V_1$, $V_2$, $V_3$, $V_4$, $V_6$ are needed that are connected via the protective ~~resistor~~ resistors $R_{6...10}$ to the ~~amplifier~~ amplifiers $A_{10,12,14,16,18}$. The signal is further amplified by a second row of amplifiers $A_{11,13,15,17,19}$, from which there is a connection to the multiplexer MP. From the multiplexer MP there is a connection via the ~~analogy~~ analog/digital converter to the micro processor PROC.

Please replace the paragraph beginning at page 8, line 24, with the following rewritten paragraph:

Fig. 6 represents one circuit diagram in accordance with the invention. The figure shows the measuring of a 12-switched EKG and IKG. For the measuring of a 5-switched EKG, the measuring electrodes RA, LA, RL, LL and $V_5$ on the left-hand corner of the figure are needed that are connected via protective resistors $R_{1,2,4,6,7}$ to amplifiers $A_{1,3,5,7}$. The signal is further amplified by a second row of amplifiers $A_{2,4,6,8,}$ which are further connected to the multiplexer MP. From the two measuring electrodes RA and LA there is a connection via protective resistors $R_{3,5}$ to the standardized measuring circuit SRIC of the impedance of breathing which is further connected to the multiplexer MP. The multiplexer MP is further connected via an ~~analogy~~ analog/digital converter ADC to the micro processor PROC. Besides the aforementioned measuring electrodes, for the measuring of a 12-switched EKG or IKG, the measuring electrodes $V_1$, $V_2$, $V_3$, $V_4$, $V_6$ are needed that are connected via protective resistors $R_{8,10,12,14,16}$ to amplifiers $A_{10,12,14,16,18}$ that are further connected to the multiplexer MP. From the multiplexer MP there is a connection via the ~~analogy~~ analog/digital converter ADC to the micro processor PROC. The micro processor PROC is connected to high-frequency current drivers HFCD from which there is further a connection to the measuring electrodes $V_1$ and $V_2$ via the protective resistors $R_{9,11}$. The measuring electrode $V_4$ is connected via the protective resistor $R_{15}$ to the high-frequency amplifiers and to the observation circuit of the synchrone, from which there is a connection via the ~~analogy~~ analog/digital transformer ADC to the micro processor PROC.